

IN THE SPECIFICATION

Please replace Paragraph [0015] on Page 5 with the following paragraph:

-- [0015] The socket body 18 includes alternating insulating and conductive layers. The conductive layers include the power conductor 20, ground conductor 22, and signal conductor[[s]] 24. The socket body 18 has a horizontal base portion 28 and vertical sidewalls 30 that jointly form a recess holding formation 32 for receiving the microelectronic component 16. An array of horizontally spaced vertically extending openings 34 are formed within the base portion 28 and socket body 18. --

Please replace Paragraph [0016] on Page 5 with the following paragraph:

-- The power conductor 20 includes a horizontal power plane 36 and a plurality of vertical liners 38P(i) and 38P(ii). The power plane 36 is formed on an upper surface of the horizontal base portion 28. The vertical liners 38P(i) and 38P(ii) line the inside of two respective openings 34. The power plane 36 is connected to all the vertical liners 38P(i) and 38P(ii), and is electrically disconnected from ground conductor 22 and signal conductor[[s]] 24.

Please replace Paragraph [0017] beginning on Page 5 with the following paragraph:

-- The ground conductor 22 includes a horizontal ground plane 40 and a plurality of vertical liners 38G(i) and 38G(ii). The ground plane 40 is formed on the lower level of the socket body 18. The vertical ~~[[lines]]~~ liners 38G(i) and 38G(ii) line the inside of two respective openings 34. The ground plane 40 is connected to all the vertical liners 38G(i) and 38G(ii). --

Please replace Paragraph [0018] on Page 6 with the following paragraph:

-- The signal conductor 24 includes a horizontal signal plane 42 and a plurality of vertical liners 38S(i) and 38S(ii). The signal plane 42 is formed between the power ~~[[20]]~~ planes 36 and ground ~~[[22]]~~ planes 40, and is electrically isolated from the power conductors 20 and ground ~~[[22]]~~ conductors 22 of the socket body 18. The vertical liners 38S(i) and 38S(ii) line the inside of two respective openings 34. The signal conductor 24 is connected to all the vertical liners 38S(i) and 38S(ii). --

Please replace Paragraph [0020] on Page 6 with the following paragraph:

-- Each protrusion 52 is circumferentially around an outer surface of the respective interconnection element 46. A distance D1 from the stop component 48, to a first lowest protrusion 52P(i) is substantially the same on all the interconnection elements 46. In addition, a distance D2 to a second higher protrusion 52P(ii) is substantially the same height as each interconnection element 46. --

Please replace Paragraph [0021] beginning on Page 6 with the following paragraph:

-- As Figure 3 illustrates, the spring portion 44 enters the opening 34, followed by the interconnection element 46. The protrusions 52 frictionally fit to the sides of the openings 34 contacting either the power conductor 20, the ground conductor 22, or the signal conductor 24. The stop component 48 limits the distance that each respective electrical conductor 26 travels into the socket body 18. The spring portion 44 then extends this same distance into the recess holding formation 32 and is subsequently bent as illustrated in Figure 6. The solder balls 50 are located at the bottom surface of the stop component 48, and as illustrated in Figure 6, each respective solder ball 50 is electrically connected to a respective upper carrier contact terminal[[s]] 60 of the carrier substrate 12. --

Please replace Paragraph [0022] on Page 7 with the following paragraph:

-- The electrical conductors 26A and 26B electrically connect to the power conductor 20 and are electrically disconnected from the ground conductor 22 [[20]] and signal conductor[[s]] [[22]] 24. The electrical conductors 26C and 26D electrically connect to the ground conductor 22 and are electrically disconnected from the power conductor 20 and signal conductor[[s]] [[22]] 24. The electrical conductors 26E and 26F are electrically connected to the signal conductor 24 and electrically isolated from the power conductor 20 and ground conductor[[s]] [[24]] 22. --

Please replace Paragraph [0023] on Page 7 with the following paragraph:

-- Figures 4 and 5 illustrate the components of the microelectronic assembly 10 which include the carrier substrate 12, the socket 14, the microelectronic component 16, but further includes clamps 58. The microelectronic component 16 includes a package substrate 54 and a microelectronic die 56 mounted to the package substrate 54. --

Please replace Paragraph [0024] on Page 7 with the following paragraph:

-- The package substrate 54 is slightly smaller and fits tightly within the ~~socket~~ recess holding formation 32 of the socket 14. The microelectronic die 56 has lower terminal contacts that are electrically and structurally connected to upper terminal contacts of the package substrate 54, thus the package substrate 54 provides structural rigidity to the microelectronic component 16 and electrical communication to and from an integrated circuit formed in the microelectronic die 56. --

Please replace Paragraph [0025] beginning on Page 7 with the following paragraph:

-- The clamps 58 are located outside the sidewalls 30 and housed on the socket 14. The microelectronic component 16 is lowered into the ~~socket~~ recess holding formation 32, the clamps 58 exert force on the package substrate 54 in opposition to force generated by spring portions 44, depressing the spring portions 44 of the electrical conductors 26, resulting in a high-quality electrical connection. --

Please replace Paragraph [0026] on Page 8 with the following paragraph:

-- Figure 6 illustrates the insertion of the package substrate 54 of the microelectronic component 16 into the ~~socket~~ recess holding formation 32. Each respective spring portion 44 depresses, electrically contacting a respective package terminal 62 formed on a lower side of the of the package substrate 54 of the microelectronic component 16. The carrier substrate 12, including upper carrier contact terminals 60, each respectively ~~contacting~~ contacts a respective solder ball 50 of the socket 14. --

Please replace Paragraph [0027] on Page 8 with the following paragraph:

-- In use, the socket 14 provides transmission of charge to and from the integrated circuit. Electrical current is received by the socket 14 through the carrier substrate 12, upper carrier contact terminals 60 and to the respective solder ball 50. Interconnection element 46 of the respective electrical conductor 26 receives charge though the solder ball 50 and emits the respective electrically connected conductor, being ground, power or signal, to the package terminal 62 of the package substrate 54 though the spring portion 44 and to a second electrically connected interconnection element of ~~[[a]]~~ an electrical conductor 26 through protrusions 52. --

Please replace Paragraph [0028] on Page 8 with the following paragraph:

-- Power flows though electrically connected electrical conductors 26A and 26B, while electrically disconnected from ground and signal planes, ground flows

though electrically connected electrical conductors 26C and 26D, while electrically disconnected from power and signal planes and signals flow[[s]] ~~though~~ through electrically connected electrical conductors 26E and 26F, ~~isolated from ground and signal.~~ - -

Please replace Paragraph [0029] beginning on Page 8 with the following paragraph:

- - The package terminal 62 on the package substrate 54 transmits the charge received from the spring portion 44 to the microelectronic die 56. The microelectronic die 56 has lower terminal contacts that are electrically and structurally connected to upper terminal contacts of the package substrate 54. The microelectronic die 56 provides electrical communication to and from an integrated circuit formed within [[in]] the microelectronic die 56. - -

Please replace Paragraph [0030] on Page 9 with the following paragraph:

- - Integrated circuits operate at a specific frequency. Frequency will determine how fast instructions are computed within a given computer. Computers are processing larger amounts of information and at greater speeds, requiring more power. In order to meet increased power demands, a reduction in electrical parasitics is essential. One advantage of the socket design includes the embedding of planes within the socket body 18 in a way that allows for lateral flow of charge, this lowers resistance, inductance and creates a more efficient power delivery to the integrated circuit. - -

Please replace Paragraph [0031] on Page 9 with the following paragraph:

-- The socket design also provides for an accurate cost-effective ease of assembly. Its advantage is its ability to provide for a insertion of each electrical conductor 26, where each electrical conductor 26 has a first set of protrusions 52P(i) located at substantially the same distance from the stop component 48 and a second set of protrusions 52P(ii), located higher than the first, are at substantially the same distance from the stop component 48 and can be inserted into any opening 34 within the socket body 18, thus eliminating error in electrical connections with the power conductor 20, ground conductor 22, or signal conductor[[s]] 24 and the need to distinguish interconnection elements during assembly. --